

# Desalination RMS Plenary 2013



Richard Mills, P.E. Unit Chief  
and  
Michael Ross, P.E.  
Toni Pezzetti, P.G.  
Nancy King, P.E.

Water Recycling and Desalination Unit  
Div. of Statewide Integrated Water Management  
**Department of Water Resources**  
**Sacramento, CA**



# Session & Document Overview

- What we have accomplished to date (Past to Present)
- Key Sections (Text) Featured for this Plenary



# Desalination RMS Plenary 2013

- 1<sup>st</sup> Draft Released 13 Nov. 2012
  - Public Workshop 20 Nov. 2012
  - Comments Due 27 Nov. 2012
- 2<sup>nd</sup> Draft Released 27 Aug. 2013
  - Public Workshop 28 Aug. 2013
  - Comments Due 13 Sep. 2013
- Public Review Draft 16 Oct. 2013
  - Plenary 30 Oct. 2013
  - **Comments Due 2 Dec. 2013**



# Desalination RMS Plenary 2013

## Three ways to Comment (see Reviewer's Guide)

1. e-mail [cwpc@water.ca.gov](mailto:cwpc@water.ca.gov)
  2. Fax 916-651-9289
  3. Mail See Reviewer's Guide
- For tracked public comments, we encourage Adobe Reader's *Sticky Notes* and the posted PDF version of the RMS.

Desal-RMS authors will accept comments outside of the public commenting process.



# Desal-RMS Key Points

- Guiding Principle
  - Water Sustainability, Page 10-2
- Perspectives
  - 1960, before and now, this is not a new topic.
  - Saline Water Conversion Act--1965
- Source Water Terms
  - Page 10-6 & Figure 10-1
  - Groundwater, Page 10-4
  - Seawater, Page 10-24
- Source Water Designations & Protection
  - NPDES, Intakes and Brine, Page 10-15
  - Protection based on Desal Technologies, Page 10-16
  - CEQA for All, Page 10-16



# Desal-RMS Key Points

- Plans and Planning
  - Data from 2010 Urban Water Management Plans (UWMP) and IRWM, Page 10-12
  - Planning and Growth, Page 10-2
- Greenhouse Gases and Renewable Energy
  - Coupling Renewables with water supply infrastructure. Page 10-28--recommendation
- Grant Funding
  - PSP for 3<sup>rd</sup> round soon to be released (days).



# Water Sustainability

Water sustainability is the dynamic state of water use and supply that meets today's needs without compromising the long-term capacity of the natural and human aspects of the water to meet the needs of future generations. Page 10-2



# Perspective 1960 to Now

“Although no saline water demineralization technique yet developed can compete with the costs of large scale development of natural sources of water in California, it is probable that saline water conversion plants will have a definite place in the water program. The Department of Water Resources will continue to take a definite and continuing interest in those areas of research and development that may have promise of eventually producing low cost converted water.” Page 10-13.



# **Cobey-Porter Saline Water Conversion Law (Water Code §§ 12946 – 12949.6)**

DWR is directed to find economic and efficient methods of desalination so that desalted water (e.g., drinking water or other water) may be made available to help meet the growing water requirements of the State.

Eliminate the necessity for additional facilities to transport water over long distances, or supplement the services provided by long-distance facilities. Page 10-15.



# Groundwater (subsurface)

As groundwater desalination expands in the future, groundwater overdraft issues will be an integral consideration. At this time, the majority of groundwater desalination occurs in basins with some degree of groundwater management or adjudication. This enables groundwater desalination to be strongly linked to other groundwater uses and recharge activities, IRWM, and local supply. Page 10-14.



# Sea Water (surface & Subsurface)

The issues being considered vary significantly, but the common issue is the contentiousness of the discussions. Page 10-14.



# NPDES Intakes and Brine

These permits are required for disposal of brine from desalination facilities. The permits incorporate provisions in the water quality control plans, including protections of the brackish and sea water aquatic ecosystems. Page 10-15.



# Designation based on Desal Technologies

With a few exceptions, RWQCBs have not designated for protection brackish groundwater or ocean water sources currently being treated with desalination for municipal water supply. Page 10-16



# CEQA for All

Applying CEQA requirements equally among water supply alternatives (e.g., fresh, brackish, sea, and direct/indirect recycling) is essential for determining the best water supply project to implement. Page 10-16



# UWMPs and IRWM

The plans must contain several specified elements, including identifying feasible desalination water supply alternatives. The act also requires water suppliers to review and update their plans at least once every five years. Page 10-12.

*We are currently compiling 2010 plans for the RMS.*



# Planning for Growth

A community's vision for population growth and land development ideally should be resolved in a broader context of community planning, such as county general plans, not water supply planning. Page 10-26



# Coupling Renewable Energy

Research and investigations should continue to develop new or improved technologies to advance and refine desalination processes, feedwater intake and concentrate management technologies, energy efficiencies, and the use of alternative and renewable energy sources. Page 10-28



# Desal Grant PSP

The 3<sup>rd</sup> round of solicitation for desalination projects to be considered for Prop. 50 grant funding is only days away from release to the public.



# Contact Information



**Rich Mills, PE**

Chief, Recycling and Desalination Section

Department of Water Resources

916-651-0715

[mills@water.ca.gov](mailto:mills@water.ca.gov)

**Toni Pezzetti**

916-651-7024

[tonianne.pezzett@water.ca.gov](mailto:tonianne.pezzett@water.ca.gov)

**Michael Ross**

916-651-0717

[michael.ross@water.ca.gov](mailto:michael.ross@water.ca.gov)

**Nancy King**

916-651-7200

[nancy.king@water.ca.gov](mailto:nancy.king@water.ca.gov)

